

The '027 application is directed, inter alia to a method for cleaning a semiconductor wafer having a copper layer exposed to a surface thereof after a chemical mechanical polishing, comprising the steps of:

- a) treating said semiconductor wafer with a first washer selected from the group consisting of hydrogen containing water for removing polishing particles from said semiconductor wafer without damage to said copper layer; and
- b) treating said semiconductor wafer with a second washer containing at least one decontaminating agent selected from the group consisting of polycarboxylic acids each capable of producing a chelate compound together with copper, ammonium salts of said polycarboxylic acids for removing metallic contaminants from said semiconductor wafer.

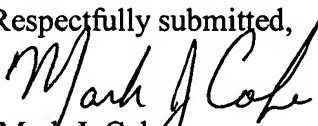
During prosecution thereof, a restriction requirement was imposed in which applicant was requested to elect between the various species in the first washer and the various species of the second washer.

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Pursuant to the restriction requirement, applicants elected the first washer to be hydrogen containing water and the second washer to be polycarboxylic acids. However, the U.S. Patent and Trademark Office also permitted the second washer to include copper and ammonium salts of the polycarboxylic acids. The remaining subject matter was not examined in the parent application. More specifically, the non-elected subject matter resulting from the imposition of the restriction requirement consisted of the remaining combination and permutations of the subject matter recited in claims 25 et. seq. In other words, the non-elected subject matter is directed to a method for cleaning a semiconductor wafer in which the semiconductor wafer is treated with a first washer and a second washer, wherein, in a first embodiment, the first washer

is selected from the group consisting of aqueous ammonia and a catholyte between neutral and weak base and the second washer is polycarboxylic acid each capable of producing a chelate compound together with copper, ammonium salts of said polycarboxylic acids and polyaminocarboxylic acids or wherein, in a second embodiment, the first washer is aqueous ammonia, the catholyte between neutral and weak base or hydrogen containing water and the second washer is polyaminocarboxylic acid. The present application is directed to the non-elected subject matter.

Wherefore, the present application is in condition for allowance.

Respectfully submitted,  
  
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